

“DEAD ON ARRIVAL”: A SYNTHETIC CANNABINOID WITH DETRIMENTAL EFFECTS

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Synthetic cannabinoid (SC) are drugs of abuse with highest use amongst young adults. Their affordability and avoidance of detection in the urine contributes to their abuse. However, their use is associated with numerous deleterious effects. We present a case of acute renal failure and extensive barotrauma after SC use in a healthy young male. A 22-year-old white male presented with 4 day history of vomiting, abdominal pain and body cramps, which started approximately 10 hours after smoking synthetic marijuana. In the ER, he was unarousable with shallow respirations. Subcutaneous emphysema was noted around his neck. He was intubated. CT chest showed pneumomediastinum, bilateral pneumothoraces and pneumorachis. No bullous or cystic lung disease was noted. Laboratory data revealed: WBC 30K/uL, BUN 192mg/dl, creatinine 16.8mg/dl, Na 159mmol/L, CO₂ 12mmol/L, phosphorus 9.6mg/dl and calcium 6.7mg/dl. Urine drug screen was negative. Infectious etiologies were negative. An esophagogram ruled out a tear as a factor for subcutaneous emphysema. After three dialysis sessions, his urine output and renal functions improved gradually. He refused a kidney biopsy. While on oxygen, the pneumothoraces also resolved. His creatinine was 2.8mg/dl on day of discharge. Cannabimimetics are adulterated with other compounds and sold under various trade names such as DOA and Spice. Acute coronary syndrome and seizures may occur in addition to the above presentation. Barotrauma is related to the way the agent is smoked thereby causing alveolar rupture. The kidney biopsy usually reveals acute tubular necrosis or interstitial nephritis. Treatment is supportive. This case was presented to increase awareness among physicians to enquire about designer drugs in patient who present with acute kidney injury of unknown etiology especially when the urine drug screen is negative.